

Title: Individual Differences in L2 Acquisition of Japanese Particles WA and GA

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Document date: 2008/8/11

1. INTRODUCTION

The purpose of this study is to investigate learners' individual differences in learning the Japanese particles *WA* and *GA* by using the lens of Multiple Intelligences (Gardner, 1983) and their influence on learning.

Japanese particles *WA* and *GA* are one of the most difficult linguistic items to acquire for learners of Japanese (Kuno, 1973; Russell, 1985; Sakamoto, 1993; Yagi 1993) (see appendix A). Earlier studies of L2¹ acquisition of the Japanese particles *WA* and *GA* argued that learners of Japanese tend to acquire *WA* before *GA* regardless of their L1s, proficiency levels, learning situations (whether or not they are in the country where the L2 is spoken), and their production types (written or oral) (Ishida, 1991; Nagatomo, 1993; Tomita, 1997; Yagi, 1992, 1996; Yokobayashi, 1994; Yoshioka, 1991) (see appendix B). Furthermore, Hanada (1999) and Sakamoto's studies (1986, 1993, 2000) suggest that the different functions of *WA* and *GA* affect their acquisition, that is, thematic *WA* and object *GA* are acquired before contrastive *WA* and subordinate clause *GA* (see appendix A) .

These earlier studies, however, have completely ignored learner's individual differences. Indeed, the learner's individual aptitude influences their L2 acquisition (Ellis, 1997; Gass & Selinker, 2001; Lightbrown & Spada, 1999). One theory which addresses learners' individual differences is the Multiple Intelligences theory (Gardner, 1983). The Multiple Intelligences theory suggests that all people potentially possesses at least eight

different intelligences that influence their learning (Gardner, 1983) (see appendix C). Thus, I believe that the learners' different intelligences affect the learning of WA and GA.

Although the Multiple Intelligences theory provides a theoretical foundation for learner diversity, research has not been conducted which investigates to what extent the learners' individual intelligences have influence on L2 acquisition. In addition, learners' Multiple Intelligences have never been studied in terms of the L2 acquisition of the Japanese particles WA and GA, although there are many studies conducted on the L2 acquisition of WA and GA. Therefore, this present study investigates the research question, to what extent do the learners' Multiple Intelligences influence the learning of the Japanese particles WA and GA. The results of this study may help to further understand learners' individual differences in the L2 acquisition of WA and GA.

2. LITERATURE REVIEW

2-1. L2 Acquisition Studies of Japanese Particles WA and GA

In L2 acquisition studies of Japanese particles WA and GA, many researchers studied the accuracy order of Japanese particles WA and GA, while some researchers investigated its accuracy use of each function of WA and GA (see appendix A).

The studies focusing on the accuracy order of WA and GA found that higher accuracy in the use of WA and lesser accuracy in the use of GA were common to L2 learners regardless of their L1s, their levels, learning situations (whether or not they are in L2 spoken country), and their production types (written or oral) (Ishida, 1991; Nagatomo, 1993; Tomita, 1997; Yagi, 1992, 1996; Yokobayashi, 1994; Yoshioka, 1991) (see appendix B). In fact, all of these previous studies resulted that WA was used more accurately than GA no matter what language the learners' L1 is, which levels the learners are, where the learners study, and what types the

learners' performances are (Ishida, 1991; Nagatomo, 1993; Tomita, 1997; Yagi, 1992, 1996; Yokobayashi, 1994; Yoshioka, 1991) (see appendix B). Therefore, based on these earlier studies, it can be said that all learners of Japanese learn *WA* before *GA*, regardless of their L1s, levels, production types, and learning situations.

Although it seems that the L2 acquisition of *WA* proceeds to that of *GA*, its accuracy use depends on each function of *WA* and *GA* (see appendix A). Thus, all functions of *WAs* (thematic and contrastive) are not always learned before all functions of *GAs* (exhaustive, neutral, object, and subordinate clause) (see appendix A). Sakamoto (2000) summarized the previous L2 acquisition studies of *WA* and *GA* by L2 learners of Korean, Chinese, and English speakers. He concluded that thematic *WA* and object *GA* tend to be more accurately used than contrastive *WA* and subordinate clause *GA* by the learners of Japanese regardless of their L1s. In fact, three studies (Hanada, 1999; Sakamoto, 1986 and 1993) using the cloze test data revealed the same result. Hanada's (1999) study was based on the data from 23 Chinese intermediate level learners of Japanese. Sakamoto's (1986) study looked at the data of 44 English learners ranged from elementary to advanced levels. In addition, Sakamoto (1993) conducted the longitudinal study using the data of 37 English learners of Japanese in various levels. Regardless of the learners' L1s and levels, all of these three studies resulted that thematic *WA* and object *GA* had higher accuracy than contrastive *WA* and subordinate clause *GA* (Hanada, 1999; Sakamoto, 1986 and 1993). Thus, as long as looking at the cloze test data, all L2 learners of Japanese seem to learn thematic *WA* and object *GA* before contrastive *WA* and subordinate clause *GA*, regardless of their L1s and levels.

The earlier studies discovered that L2 learners seem to learn *WA* usage before *GA* usage, and moreover the learning of thematic *WA* and object *GA* take place before contrastive

WA and subordinate clause GA (Hanada, 1999; Ishida, 1991; Nagatomo, 1993; Tomita, 1997; Sakamoto, 1986, 1993, and 2000; Yagi, 1992, 1996; Yokobayashi, 1994; Yoshioka, 1991). However, these studies have completely ignored the learners' individual differences, such as learners' language learning styles and their intelligences. Indeed, it is crucial to take advantage of the learners' individual differences in order to truly understand the learning of Japanese particles WA and GA, because the learner's individual differences in aptitude for L2 learning are important determining factors in both rate of learning and eventual success in learning a language (Ellis, 1997; Gass & Selinker, 2001; Lightbrown & Spada, 1999). Thus, there is need of the study investigating the learners' individual differences in the L2 acquisition of Japanese particles WA and GA. In order to address this issue, the present study focuses on the learners' Multiple Intelligences.

2-2. The Multiple Intelligences Theory and L2 learning

The Multiple Intelligences theory is the theory in which every person has at least seven intelligences that can be developed over a lifetime (Gardner, 1983 and 1999). The seven intelligences are bodily/kinetic, intrapersonal, interpersonal, linguistic/verbal, logical/mathematical, musical/rhythmic, and visual/spatial intelligences (Gardner, 1983 and 1999) (see appendix C). Every person possesses these intelligences, yet some are more highly developed than others in an individual (Gardner, 1983 and 1999). Thus, a learning environment that promotes the development of the learners' individual intelligences helps them to solve problems (Gardner, 1983 and 1999).

Recently, more L2 teachers have taken into account the Multiple Intelligences theory in order to help diverse learners (Christison, 1996 and 1999). The textbooks and articles for L2 teachers are suggesting the classroom application of the theory (Campbell, 1997;

Christison, 1996 and 1999; Larsen-Freeman, 2000). Also, one L2 classroom research study investigated whether integrated instruction addressing the Multiple Intelligences benefit all learners by strengthening their intelligences (Haley, 2001). The result showed that the instructional techniques incorporating this theory could receive positive effects on the students' achievement and motivation, and positive reactions from both teachers and students in the L2 classroom (Haley, 2001). Consequently, it can be said that taking learners' individual differences seriously promote learners to succeed in their L2 learning.

However, the learners' intelligences have never studied L2 acquisition, although the Multiple Intelligences have theoretical foundations. Furthermore, learners' individual intelligences have never studied the L2 acquisition of Japanese particles *WA* and *GA*, although there are many studies investigating the L2 acquisition of *WA* and *GA*. Therefore, since learners' individual differences are an important factor for learning of L2, the following question needs to be investigated: Does learners' Multiple Intelligences have any influence on the learning of *WA* and *GA*? A relationship between learners' strong intelligences and their performance and perspective of the learning Japanese particles *WA* and *GA* is the focus of this study. By understanding the individual differences in the learning of Japanese particles *WA* and *GA*, focusing on their Multiple Intelligences, will help learners to succeed in the learning of Japanese particles *WA* and *GA*.

3. METHOD

3-1. Participants

Three students were selected from a fourth-year Japanese class at an American university during the spring semester in 2006. All the participants have the same mother tongue (American English), are majoring in Japanese language, and have no experience of

studying Japanese in Japan or in an immersion school. The participants ranged in age from eighteen to twenty-two. Based on the Multiple Intelligences survey (see appendix D), the strongest intelligences of three participants are that Jacky is visual, Sally is music, and Aaron is intrapersonal (see appendix C).

3-2. Instruments

Four instruments were used as part of this study; (1) the Multiple Intelligences survey (see appendix D) was used to select the participants, (2) the cloze-test of the Japanese particle *WA* and *GA* (see appendix E) and (3) the elicited interviews to determine the choice of a certain participle (see appendix E) for the learners' performances portion, and (4) the semi-structured interviews of the learning of the Japanese particles *WA* and *GA* (see appendix F) for the learners' preferences portion of this study.

First, in order to understand the students' strengths in the different types of intelligences, the Multiple Intelligences survey, adapted from Armstrong (1994), was administered (see appendix D).

Second, the cloze-test and the elicited interviews were administered in order to assess the students' performances in the learning *WA* and *GA* (see appendix E). The test was modified from Tomita (1997) and Kuno (1997). There were fifteen dialogues that consisted of two peoples' casual conversations. One blank was prepared to be filled in with the appropriate particle in each dialogue. Three dialogues were distracters, which were supposed to be filled in with either particle *NI* or *DE*. The rest of the dialogues were prepared to be filled in with either *WA* or *GA*. The twelve dialogues consisted of two of each of the six functions of *WA* and *GA* based on Kuno (1997) (Thematic *WA* question numbers 6 & 9; Contrastive *WA* question numbers 11 & 13; Object *GA* question numbers 8 & 15; Neutral *GA* question

numbers 1 & 3; Exhaustive *GA* question numbers 7 & 10; Subordinate *GA* question numbers 5 & 14) and ordered randomly (see appendix A and E)². Also, the elicited interviews collected data detailing the reasons for the students' choice of the particle in order to find out the processes of their learning.

Third, the semi-structured interviews of learning the Japanese particles *WA* and *GA* (see appendix F) was administrated in order to look at the learners' preferences of *WA* and *GA* learning. The interview protocols consisted of a total of twenty-two questions. The questions were designed to find out the students' perspectives and preferences towards the learning of the Japanese particles *WA* and *GA* (see appendix F).

3-3. Procedure

To begin this study, the researcher administrated the Multiple Intelligences survey to all of the students in fourth-year Japanese classes (see appendix D). The participants had a few days to fill out the survey. After the researcher collected the survey, she looked at the results and chose three participants who have significantly shown their intelligences and met the criteria following: same mother tongue, majoring in Japanese, and no experience of studying Japanese in Japan or in an immersion school. Two weeks later, the researcher administrated the cloze-test and the elicited interviews for finding out the learners' performances (see appendix E) and the semi-structured interviews for their preferences (see appendix F) towards the learning of *WA* and *GA*. The cloze-test and all of the interviews were conducted at the same time in front of the researcher. Also, the test and the interviews were administrated one participant at one time in the Japanese classroom after class time. Both interviews were conducted in the participants' native language, English. It took approximately two hours. Both interviews were tape-recorded with permission from the participants in order

to better analyze the data. The results of the three participants' cloze-test and the elicited interviews, the semi-structured interviews were then analyzed in order to find out to what extent their intelligences influence their learning of WA and GA.

4. RESULTS & DISCUSSION

The results answered the research question of this study; to what extent do the learners' Multiple Intelligences influence their learning of the Japanese particles WA and GA. The answer was that the learners' individual intelligences do not influence their learning of WA and GA in terms of their performances based on the data obtained through the cloze-test and the elicited interviews (see appendix E). However, the learners' different intelligences do influence their learning of WA and GA in terms of their preferences as determined by the semi-structured interview data (see appendix F).

4-1. Results and discussion of the learners' performance of the learning WA and GA and their strong Multiple Intelligences

The three participants' cloze-test scores for the appropriate use of each function of WA and GA are shown in Table 1.

Participants' Strong Intelligences	WA	GA
Jacky Visual Intelligence	4/4: 100% Thematic: 2/2 Contrastive: 2/2	4/8: 50% <u>Object: 2/2</u> Neutral: 1/2 Exhaustive: 1/2 <u>Subordinate: 0/2</u>
Sally Music Intelligence	4/4: 100% Thematic: 2/2 Contrastive: 2/2	5/8: 63% <u>Object: 2/2</u> Neutral: 1/2 Exhaustive: 1/2 <u>Subordinate: 1/2</u>
Aaron Intrapersonal Intelligence	4/4: 100% Thematic: 2/2 Contrastive: 2/2	8/8: 100% <u>Object: 2/2</u> Neutral: 2/2 Exhaustive: 2/2 <u>Subordinate: 2/2</u>

Table 1. The cloze test scores of each participant for appropriate use of each function of WA and GA.

As Table 1 shows, the learners' different intelligences do not have any influence on learning of WA and GA, as far as looking at their performances on the cloze-test. The accuracy scores for WA choices were 100 % in all three of the participants, however; the accuracy scores of GA choices were not 100% (Sally 64 % and Jacky 50%) with the exception of Aaron.³ This result supports the findings of earlier studies, namely, that L2 learners learn WA before GA (Ishida, 1991; Nagatomo, 1993; Tomita, 1997; Yagi, 1992, 1996; Yokobayashi, 1994; Yoshioka, 1991). Therefore, the results may suggest that regardless of their individual differences in terms of their intelligence, the learners learn WA usage before GA usage, as the earlier research has suggested.

Moreover, regardless of their individual differences, the learners seem to have learned both functions of WA (contrastive WA and thematic WA) (see appendix A). One reason was that all three participants appropriately distinguished between the contrastive WA and the thematic WA. For example, according to their answers on the elicited interviews, all three said the word "contrast" for the contrastive WA choices⁴. The other reason was that they did not overuse WA for GA. Inappropriate choices of the particles for GA were varied, such as particles *O*, *TO*, or *NI*.⁵ Therefore, this result may indicate that the three participants learn both functions of WA and their individual intelligences do not influence their learning of the different WAs.⁶

While the results show that regardless of the learners' individual intelligences they learn WAs but not GAs, the learning of GAs also seems not to be influenced by their individual differences. The accuracy scores for GA usages were varied. All three participants chose the object GA correctly, while the exhaustive GA and the neutral GA were correctly

identified approximately half of the time (Aaron was 100%). Furthermore, the accuracy scores on the subordinate clause *GA* were that Jacky was 0% and Sally was 50 % (Aaron was 100%) (see appendix A). Thus, based on their scores, regardless of their individual differences, they had learned the object *GA*, but not the exhaustive *GA* and the neutral *GA*, and especially not the subordinate clause *GA*. This result also supports the previous studies which suggest that L2 learners learn the object *GA* before the subordinate clause *GA* (Hanada, 1999; Sakamoto, 1986, 1993, and 2000). Therefore, the results may indicate that regardless of the different characteristics of their intelligences, the learners acquire the object *GA* before the subordinate clause *GA*, as the earlier studies have suggested.

The reasons for the difficulties in learning the subordinate clause *GA* may be that the learners only look at before and after the blank where the particle is to be filled in and use their memory of the expression as a chunk, rather than their individual intelligences. For example, based on the elicited interviews, both Sally and Jacky put *TO* in sentence 14 (see appendix E), and they said that this is because particle *TO* is used before the verb *iu* “to say”. This result suggests that the learners do not look at the sentence as a whole, such as main clause or subordinate clause, but instead they are only looking at the element close to the target linguistic item and using the strategy of remembering a common expression in order to make their choices.

Furthermore, the learners used the same strategy above, not only for the subordinate clause *GA* but also for the exhaustive *GA* and for the neutral *GA*. For example, Sally put *TO* in sentence 1 which required the neutral *GA*, and said “because *TO* is after *tomodati*” meaning ‘with friend’ (see appendix E). Also, Jacky put *O* in sentence 10 which required the exhaustive *GA*, and said “*O* goes with the verb *yasumu*”, ‘to be absent’ (see appendix E).

Moreover, even for the choice of the object GA, which had 100 % accuracy, all three learners were using the same strategy as the subordinate clause GA, the neutral GA, and the exhaustive GA choices. For example, all three said that the reason for choosing of the object GA in sentence 8 was “using GA before *wakaru*” ‘to understand’ and in sentence 15 was “using GA before *dekiru*” ‘can’ (see appendix E). Thus, this result may suggest that regardless of the differences in their strong intelligences, they were using the same strategy for choosing GA⁷. The learner strategy of looking at the element close to the target linguistic item and relying on their memory of a certain expression seems to suggest that the learning of GA is delayed⁸ compared to the learning of WA, rather than attributable to their individual differences.

Consequently, as far as looking at their performances on the cloze-test and the data of the elicited interviews, regardless of the learner’s individual intelligences, they have learned the usage of WAs but not the usage of GAs. Moreover, although all the functions of WAs seem to have been learned by all the participants, GAs do not. The object GA seems to have been learned, however; the neutral GA and the exhaustive GA, and especially the subordinate clause GA tend to have been difficult for the learners. These results support all the previous studies (Hanada, 1999; Ishida, 1991; Nagatomo, 1993; Tomita, 1997; Sakamoto, 1986, 1993, and 2000; Yagi, 1992, 1996; Yokobayashi, 1994; Yoshioka, 1991). Furthermore, the difficulty in learning GA seems not to be dependent on the different characteristics of individual intelligences, but rather seem to be based on the learners’ common strategy use.

4-2. Results and discussion of the learners’ preferences of the learning WA and GA and their strong Multiple Intelligences

In the results of the learners’ performances on the test and the elicited interviews, the individual differences did not show any influence on their learning of WA and GA, rather

they seemed to follow the common order of the learning of WA and GA and used the same strategy for their choices. However, the results of the semi-structured interviews showed that the learners' different intelligences seemed to affect their preferences of the learning of WA and GA.

Selected quotes from the three participants regarding four of the twenty-two interview questions are shown in Table 2.

Participants' Strong Intelligences	Question 12: How do you overcome your difficulties?	Question 13: How do you study grammar?	Question 17: What do you want from your teacher for WA and GA?	Question 19: What kinds of classroom activities are helpful for WA and GA?
Jacky Visual Intelligence	Use flash cards	I don't anymore	Explain and show me the clear rule... because I have heard conflicting information	Explain situation and giving me a handout with a lot of examples
Sally Music Intelligence	Watch Japanese movies to practice listening	I don't very much...I usually read aloud and check what sounds 'right'	Correct me when I use the inappropriate particle, remind me why.	Just having to use WA and GA in normal speech...I learn best when something is in interaction and in discussion many times.
Aaron Intraperson Intelligence	By reading examples with different contexts... by my self	The same as question 12	Very picky and strict in telling which is more appropriate	Reading and thinking...by myself

Table 2. Quotes from the three participants' semi-structured interviews.

As Table 2 shows, the learners' different intelligences seem to have influence on their preferences of the learning of WA and GA, as far as looking at their responses in the semi-structured interviews.

Jacky, who has strong visual intelligence, "the sensitivity to form, space...the ability to graphically represent ideas" (Christison, 1996, p.11), said that explaining and

showing her the clear rules visually helps her learning of WA and GA. Also, she answered “use flash cards” to overcome the difficulty of learning Japanese. Thus, her strong intelligence (visual intelligence) may have influence on her learning of WA and GA, because Gardner’s Multiple Intelligences theory suggests that a person who has visual intelligence relies on visual cues (1983).

Sally, who has strong music intelligence, “the ability to recognize sounds in speech and melodies” (Christison, 1999, p.11), said that she wants to practice using WA and GA in speaking. She also answered that her way of learning the grammar is reading aloud and checking whether it sounds right or not. In addition, she cited “watching Japanese movies to practice listening” in order to overcome her difficulty in learning Japanese. Thus, her strong intelligence, music intelligence, seems to significantly affect her preference towards her learning of Japanese as well as the particles WA and GA, because the Multiple Intelligences theory indicates that a person who has music intelligence has more ability to recognize sounds (Gardner, 1983).

Aaron, who has strong intrapersonal intelligence, “the ability to understand yourself, your strengths, weakness, moods, and intentions” (Christison, 1999, p.11), said that “reading and thinking...by himself” is the best way to learn WA and GA, to study the grammar, and to overcome the difficulty of learning Japanese. Christison (1996) explains that some of the classroom activities using intrapersonal intelligence include, “activities with a self-evaluation” (p.10). Thus, Aaron’s preference for learning WA and GA also seem to be influenced by his strong intelligence, because the Multiple Intelligences theory suggests that a person who has intrapersonal intelligence tends to prefer to learn alone (Gardner, 1983).

Therefore these results from the interviews seem to suggest that the learners' different intelligences did influence their chosen modality in the learning process of WA and GA.

Consequently, although the learners' individual differences seem not to affect their performances of the learning of WA and GA, their intelligences seem to have influences on their preferences of the learning WA and GA. This result seems to suggest that the learners' Multiple Intelligence may affect the learners' developmental paths at the beginning stages of development. Thus, further research is needed to find out whether the first, second, or third year students' individual intelligences have any influence on their learning of WA and GA.

One of the most difficult items to learn in Japanese language is particles WA and GA. Further studies are needed before making a conclusion regarding the influence of the individual differences on the learning of WA and GA. However, this study's findings have brought up some possible implications for further research.

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Appendix A

The Six Functions of WA and GA

(Kuno, 1973, p. 37)

- (1) WA-1: Topic Marker “speaking of...; talking about...”
Ano hito WA dare desu ka.
 That person WA who is question
 “Who is that person?”

- (2) WA-2: Contrastive Marker “...X...(, but ...Y...)”
Osake WA nomimasu ga, biiru WA nomimasen.
 Sake WA drink but beer WA drink-not
 “I drink ‘sake’, but I don’t drink beer.”

- (3) GA-1: Exhaustive Listing Marker in Subject Position “X (and only X)..”
Hanako GA Gakusee desu.
 Hanako GA student is
 “It is Hanako who is a student.”

- (4) GA-2: Neutral Description Maker “(Look!)...; (Oh!)...”
Basu GA kita.
 Bus GA came
 “Look! bus came.”

- (5) GA-3: Subject Marker in Subordinate Clause
Taroo wa [Hanako GA kaita] tegami wo yonda.
 Taroo Hanako GA wrote letter read.
 “Taro read a letter which Hanako wrote.”

- (6) GA-4: Object Marker in Stative Predicate
Taroo wa eigo GA dekiru.
 Taroo English GA can-do
 “Taroo can speak English.”

Appendix B
The Summary of the L2 Acquisition Studies of WA and GA

Result	Native Language of Participants	Level of Participants	Kinds of Data	Place of Study	Method of Data-Collection
Ishida (1991) WA>GA	French (60)	Elementary (30) Intermediate(30)	Conversation dialogue test	France	Cross-sectional
Yoshioka (1991) WA>GA	English (70)	Elementary (36) Intermediate(34)	Elicited imitation test, Comprehension test, Interview	America	Cross-sectional
Yokobayashi (1994) WA>GA	English (7) German (2) Italian (1)	Intermediate (4) Advanced (6)	Oral production in the classroom	Japan	Cross-sectional
Yagi (1992) WA>GA	English (38)	Intermediate	Essay	America	Cross-sectional
Yagi (1996) WA>GA	Indonesia, Thai, Malay (17)	Elementary	Essay	Japan	Cross-sectional
Nagatomo (1993) WA>GA	English (3) Danish (1)	Elementary	Cloze-Test	Japan	Longitudinal
Tomita (1997) WA>GA	English (29) Korean (3) Chinese (3)	Intermediate(275hours)(11) Advanced(400/500hours)(24)	Cloze-Test	America	Cross-sectional

Appendix C

The Multiple Intelligences theory

1. Bodily/Kinetic Intelligence

Bodily/Kinetic Intelligence is defined as the ability to use the body to express ideas and feelings and to solve problems. This includes such physical skills as coordination, flexibility, speed and balance (Christison, 1999, p.11). Classroom activities include hands-on activities, field trips and role-plays (Christison, 1996, p.10).

2. Intrapersonal Intelligence

Intrapersonal Intelligence is the ability to understand yourself-your strengths, weaknesses, moods, desires, and intentions. This includes such skills as understanding how you are similar to or different from others, reminding yourself to do something, knowing about yourself as language learner, knowing how to handle your feelings, such as what to do and how to behave what you are angry or sad (Christison, 1999, p.11). Classroom activities include, for example, activities with a self-evaluation component, interest centers, and option for homework, personal journal keeping (Christison, 1996, p.10).

3. Interpersonal Intelligence

Interpersonal intelligence is the ability to understand another person's moods, feelings, motivation, and intentions. This includes such skills as responding effectively to other people in some pragmatic way, such as getting students or colleagues to participate in project (Christison, 1999, p.11). Classroom activities include, for example, pair work or peer teaching, board games, group brainstorming, group problem solving, and project work (Christison, 1996, p.10).

4. Linguistic Intelligence

Linguistic Intelligence is the ability to use words effectively both orally and in writing. This intelligence includes such skills as remembering information, convincing others to help you, and talking about language itself (Christison, 1999, p.11). Classroom activities included, for example, note taking, listening to lectures, reading books, storytelling, and debates (Christison, 1996, p.10).

5. Logical/Mathematical Intelligence

Logical/Mathematical Intelligence is the ability to use numbers effectively and reason well. This includes such skills as understanding the basic properties of numbers, principles of cause and effect, the ability to predict, and using simple machines (Christison, 1999, p.11). Classroom activities include, for example, science demonstrations and experience, logic puzzles and games, story problems with numbers, logical/ sequential presentation of subject matter (Christison, 1996, p.10).

6. Musical Intelligence

Musical Intelligence is sensitivity to rhythm, pitch, and melody. This includes such skills as the ability to recognize simple songs and to vary speed, tempo, and rhythm in simple melodies (Christison, 1999, p.11). Classroom activities include, for example singing, playing recorded music, playing live music (piano, guitar), Jazz Chants (Christison, 1996, p.10).

7. Visual/ Spatial Intelligence

Visual/ Spatial Intelligence is sensitivity to form, space, color, line and shape. It includes the ability to graphically represent visual or spatial ideas (Christison, 1999, p.11). Classroom activities include, for example, using charts and grids, videos, slides, movies, using arts, using graphic organizers(Christison, 1996, p.10).

Appendix D Multiple Intelligences Survey

Adapted from (Armstrong, 1994, p.18)

Name: _____

Check (x) each statement that applies to you.

Verbal/ Linguistic Intelligence

- ___ Books are very important to me.
- ___ I hear words in my head, before I read, speak, or write them down.
- ___ I am good at word games, like Scrabble or Password.
- ___ I enjoy entertaining others or myself with tongue twisters, rhymes, or puns.
- ___ English, social studies, and history are easier for me than science and math.
- ___ I have recently written something that I am especially proud of.

TOTAL = _____

Logical / Mathematical Intelligence

- ___ I can easily compute numbers in my head.
- ___ Math and/or science are among my favorite subjects in school.
- ___ I enjoy brainteasers or games that require logical thinking.
- ___ My mind searches for patterns and regularities in things.
- ___ I am interested in new developments in science.
- ___ I believe that almost everything has a logical explanation.

TOTAL = _____

Visual / Spatial Intelligence

- ___ I often see clear visual images when I close my eyes.
- ___ I am sensitive to color.
- ___ I enjoy doing jigsaw puzzles.
- ___ I like to draw or doodle.
- ___ I can easily imagine how something might look from a bird's eye view.
- ___ I prefer looking at reading materials with lots of illustrations.

TOTAL = _____

Bodily / Kinesthetic Intelligence

- ___ I participate in at least one sport or physical activity on a regular basis.
- ___ I like working with my hands on concrete activities (like carpentry, model-building, sewing, weaving).
- ___ I like to spend my free time outdoors.
- ___ I enjoy amusement rides and other thrilling experiences.
- ___ I would describe myself as well coordinated.
- ___ I need to practice a new skill not just read about it or see a video about it.

TOTAL = _____

Musical / Rhythmic Intelligence

- ___ I have a pleasant singing voice.
- ___ I play a musical instrument.
- ___ My life would not be so great without music.
- ___ I can easily keep time to music with a simple percussion instrument.
- ___ I know the tunes to many different songs and musical pieces.
- ___ If I hear a musical selection a couple times, I can usually sing it fairly accurately.

TOTAL = _____

Interpersonal Intelligence

- ___ I am the sort of person that others come to for advice.
- ___ I prefer group sports (like softball) rather than individual sports (like swimming).
- ___ I like group games like Monopoly better than individual entertainment.
- ___ I enjoy the challenge of teaching others how to do something.
- ___ I consider myself a leader, and others have called me a leader.
- ___ I like to get involved in social activities at my school, church, or community.

TOTAL = _____

Intrapersonal Intelligence

- ___ I regularly spend time alone, reflecting or thinking about important question.
- ___ I have opinions that set me apart from the crowd.
- ___ I have a special hobby or interest that I like to do alone.
- ___ I have some important goals for my life that I regularly think about.
- ___ I consider myself to be independent minded or strong willed.
- ___ I keep a personal diary or journal to write down my thoughts or feelings about life.

TOTAL = _____

Areas of STRENGTH (4 or more checks)

Do you agree with the result?

Do your STRONG intelligences affect your Japanese language learning?

In what way?

Areas of WEAKNESS

Do you agree with the result?

Do your WEAK intelligences affect your Japanese language learning? In what way?

Appendix E
Cloze-Test : WA & GA

Modified from (Tomita, 1997)

Fill in the blank with an appropriate particle and tell me the reasons of your choice in detail.

- (1) A : あれ、だれか待ってるの？
B : うん、友達 () ポートランドから来るんだ。
- (2) A : (While looking at a photo) あれ、この子だれ？
B : この前のパーティー () 会った子。
- (3) A : あ、雨 () ふってきた！
B : えええ。
- (4) A : 今日、「さくら」 () ごはん食べない？
B : いいよ。好きだねえ、「さくら」。
- (5) A : ねえ、昨日のパーティーどうだった？
B : 田中さん () 来たから、すごかったのしかった。
A : ああ、そう。よかったねえ。
- (6) A : 明日って、土曜日？
B : ううん、違うよ。明日 () まだ金曜日。
- (7) A : だれ () 藤井先生の学生なの？
B : スミスさん。
- (8) A : テストどうだった？
B : 明日、結果 () わかるんだ。
- (9) A : 今度の金曜日ってひま？
B : 金曜日？
A : うん。久しぶりに、飲みに行かない？
B : うん、いいよ。金曜日 () ひまだから。
- (10) A : 明日って、クラス休み？
B : ううん、違うよ。今日 () 休み。

- (1 1) A : あの大きい人はブラウン先生だけど、あの小さい人 () だれ?
B : 森先生だよ。
- (1 2) A : 今、美容院さがしているんだけど、どこかいいところ知ってる?
B : あ、ポーランド () すごくいいところあるけど、どう?
- (1 3) A : 日本語のクラス、どう?
B : 先生 () おもしろいんだけど、宿題が多いんだ。
- (1 4) A : この本、おもしろそうだねえ。
B : あ、これ、この前、藤井先生 () 言ってた本だよ。
- (1 5) A : スミスさんって、日本語の他に、何語 () できるの?
B : スペイン語。

Appendix D
Interview Protocol

The students' preferences toward learning of WA and GA

1. Where are you from?
2. How old are you?
3. Which grade are you in?
4. What is your major?
5. How long have you studied Japanese?
6. What other languages do you know?
7. Why do you want to study Japanese?
8. Have you ever studied abroad in Japan?
9. Where do you usually study Japanese?
10. Who do you study Japanese with?
11. What is the most difficult thing in studying Japanese?
12. What do you do to overcome your difficulties?
13. How do you study grammar?
14. How do you study particles?

15. How do you study particles WA and GA?
16. Have you ever been taught Japanese particles WA and GA? How?
17. What do you want most from your instructor to help your learning of WA and GA?
18. What do you want most from your TA to help your learning of WA and GA?
19. What kind of classroom activities are the most helpful for you to learn WA and GA?
20. What kinds of the activities are the most interesting and enjoyable for you to learn WA and GA?
21. What kinds of activities can you perform most successfully regarding WA and GA?
22. What kinds of activities most motivate you to learn WA and GA?

¹ L2 refers to second language and L1 refers to first language.

² After the researcher created the cloze-test, the test was administrated to the three native Japanese speakers who were not familiar with this research in order to check whether the expected particle could be filled in. In addition, in this research the dialogues filled in with zero particles were ignored and the test focused on blanks which were filled in with either particle *WA* or *GA*.

³ Aaron's scores indicate that he seems to have learned both *WA* and *GA* usage. Thus, it could be said that learners who have strong intrapersonal intelligence better learn *WA* and *GA*. However, because the data is based on only one participant and is very limited, in this research the relationship between intrapersonal intelligence and the learning of *WA* and *GA* will not be strongly suggested.

⁴ They did not say "thematic" for thematic *WA* choice. It may be because they may not know the term "thematic" or "topic", thus they said "intuition". Or the thematic *WA* was understood by default usage by the learners. In this result, since they could say "contrast" for contrastive *WA* and did not overuse *WA* for *GA*, it could be said that they know the differences between contrastive *WA* and thematic *WA*.

⁵ Each particle was used one time for each of the participants.

⁶ Although the previous study suggests that thematic *WA* is acquired before contrastive *WA* (Hanada, 1999; Sakamoto, 1986, 1993, and 2000), it seems that at these learners' stage (advanced level) of the development of learning *WA*, they have learned both thematic *WA* and contrastive *WA*.

⁷ In fact, it is said that L2 learners' interlanguage systems are common (Ellis, 1997; Sakamoto, 2000).

⁸ If it is true that they were only looking at before and after the target item and using memory strategy, the learners would need to obtain many evidence by input in order to generalize their interlanguage hypothesis. This may be attributable to the learning difficulty of *GA* and not individual differences.